

2020 现代中文学校春季学期才艺教师及课程系列介绍 I

好消息！现代中文学校将于 2020 春季学期陆续推出少年击剑入门，微生物数据科学，葫芦丝等新课程。另外，现有的课程（比如成人摄影，JAVA 入门，视觉艺术等）也有相应调整。请在注册时关注课程介绍。春季学期将于 1 / 5/2020 开始，注册窗口将于近期开放，敬请关注学校的邮件通知。

■ Fencing for beginners 击剑入门

- ID 课程代码: FE01B_20S and FE01A_20S
- Date 日期 : Sun
- Start Date: 1/5/2020
- Session 时间 :
 - FE01A_20S (age 6-9) - Session 3, 11:50 am – 12:35 pm
 - FE01B_20S (age 10 and up) - Session 4, 12:40 pm – 1:25 pm
- Room 教室 : 1203

Course Title: Fencing for beginners

Description: Are you looking for an exciting new physical activity for your child? Fencing is a great mind and body workout and is often referred to as "physical chess." It is also referred to as "the martial art of fighting with blades". It develops athleticism, critical thinking skills, sportsmanship, and competitiveness! In this beginner class, students will learn the basic footwork, strategies, and practice with sword in every class. All equipment is provided. No prior experience required. If students are interested in pursuing this sport further, they have a chance to include fencing as a unique extra-curricular activity for their college application!

Coach Bio: The head coach, Hossam Hassan, is a talented and internationally recognized coach with 30+ years of experience. He holds nine certifications and degrees from the French Fencing Federation as well as the International Olympic Committee. He was the National Coach for Egypt from 2002-2004, and during his time with the team, his Women's Foil team swept the Arab Nations Championship competition. Later that year, his Men's Foil Team qualified for the 2004 Olympics Games in Athens. He has been coaching in the St. Louis region in the past 15 years and produced nationally and internationally ranked fencers throughout the years. A number of his fencers got in the Ivy league colleges and continue to compete in all levels of fencing competitions.

■ Introduction to Microbiome Data Science 微生物组学探索

- ID 课程代码: BS01A_20S
- Date 日期 : Sun
- Start Date: 1/12/2020
- End Date: 3/8/2020
- Session 时间 : Session 7, 3:20 pm – 4:05 pm

Lecturer: Fangqiong Ling, Ph.D. Washington University in St. Louis

Students: middle school and high school students.

Our bodies and the environment surrounding us are not sterile. Trillions of bacterial cells strive in and on our bodies. These microorganisms help us acquire nutrients, fight pathogens, train our immune system, and are essentially part of our “microbial self”. A lot of new understandings about these microbiomes are gained from studies enabled by DNA sequencing and advanced data analytics. In this class, we will learn to analyze DNA sequencing data from the Human Microbiome Project, through which theories about microbial phylogeny and practice of R and python-based visualization are introduced. After the class, you will gain basic understandings of the microbiome science and become familiar with methods behind new venture opportunities in the bioinformatics domain.

Lecture 1 (1/12). Introduction to microbiome science.

Lecture 2 (1/19). Methods to study microbial ecology.

Lecture 3 (2/2). Statistical methods to visualize microbiome patterns.

Lecture 4 (2/6), Lab tour at Washington University. What does a microbiome research lab look like?

Lecture 5 (2/16). Statistical methods to visualize microbiome patterns.

Lecture 6 (2/23). Data visualization with R.

Lecture 7 (3/1). Data visualization with R.

Lecture 8. (3/8). Class activity: experimental design.

凌方穹博士现在圣路易斯华盛顿大学任能源环境与化工系任助理教授，主要从事环境微生物生态学研究，擅长于通过结合实地采样，基因测序，以及大数据分析，探究环境系统中的微生物生态学机理。凌方穹 2008 年于清华大学获得环境科学与工程学士学位，2011 年，2016 年于伊利诺伊大学厄巴纳香槟分校获得环境工程硕士，博士学位。2016 年至 2018 年于麻省理工大学生物工程系进行博士后工作。目前凌方穹还兼任圣路易斯华盛顿大学计算机科学与工程系助理教授。

Dr. Fangqiong Ling is an Assistant Professor at Washington University in St. Louis in the Department of Energy, Environmental and Chemical Engineering and holds a courtesy appointment at the Department of Computer Science and Engineering. Dr. Ling's research explores the diversity of microorganisms models their interactions with the environment and each other. To achieve this goal, a suite of tools such as fieldwork, DNA sequencing, and analysis of large data sets are involved. Dr. Ling received her Bachelor's degree from Tsinghua University in 2008, and her master's and Ph.D. degrees from the University of Illinois, Urbana-Champaign. She completed postdoctoral research at Massachusetts of Institute of Technology prior to joining Washington University.

Introduction to Java Java 入门

- ID 课程代码: PR05E_20S
- Date 日期 : Sun
- Start Date: 1/5/2020
- End Date: 3/8/2020
- Session 时间 : Session 8, 4:10 pm – 4:55 pm

Course Description: This is a one-semester course designed to help middle school and high school students with little or no prior programming experience to learn the fundamentals of Java, which is an object-oriented language used to create many of the programs we use every day. Students will learn how to use a powerful Integrated Development Environment to write and compile Java programs. By the end of the course, the student should have a thorough understanding of the following: Using variables of multiple data types. Understanding how to write loops and conditionals to better control a program. Know how to utilize the Object Oriented aspect of Java with Classes and Objects. The most common strategy to read input and write output, as well as alternative approaches. USACO and Competitive Programming.

Course Meeting Times: 1-hour classes every week for 15 weeks on Sunday.

Syllabus:

Week 1: Introduction and Basics;

Week 2: Conditionals;

Week 3: Switch;

Week4: Loops;

Week5: Arrays;

Week 6: Classes and Objects;

Week7: Input/Output;

Week 8: midterm review and practice;

Week 9: Lists;

Week10: Maps and Sets;

Week 11: Queues and Stacks;

Week 12: Sorting;

Week 13: Binary search;

Week 14: Introduction to USACO;

Week15: Final exam.

Michael 现为 Ladue 高中学生，他拥有五年以上多种语言的编程经验。从八年级开始参加美国计算机奥林匹克竞赛 (USACO)，现已晋级到金级。另外还在 Google Code Jam，Code Force 等程序设计大赛中均取得优异成绩。Michael 于 2018 年秋季加入 SLMCS，讲授 Java 入门课程。希望通过讲授这门课程，让大家掌握计算机竞赛所需要的 Java 编程，并与大家分享计算机竞赛的学习资源与网站。同时该门课程也可以为高中 AP computer science (以 java 为授课语言)做准备。美国计算机奥赛 USACO 一年共有 4 次比赛，参与即被认定为铜级，一旦升级至银、金、白金等任何一级，就可以一直保持继续向前考，甚至连续升级。不像其他奥赛通常有 10% 的过线的限制，USACO 只要达到一定的分数线，就都可以出线。计算机奥赛和数理化生物奥赛一样，为含金量最高的五大竞赛之一，一旦晋级，会为你的大学申请增添很多亮色！其中最常用的计算机竞赛语言为 JAVA 和 C++，JAVA 又为最容易入门的语言之一。

Visual arts 视觉艺术 (I) (age 8 and under)

- ID 课程代码: DW06C_20S
- Date 日期 : Sun
- Start Date: 1/5/2020
- Session 时间: Session 3, 11:50 am – 12:35 pm

张丽娜老师，2010 年本科毕业 (艺术教育专业，美术方向)，之后在常州少年艺术宫做儿童绘画老师。其间，多次组织学员参加大小绘画活动，并获得良好成绩。2010 年，其个人作品《毕业生的自白》获常州市文化艺术节二等奖。工作感言，艺术之路时刻保持童真！毕加索曾说过:我花了四年时间画得像拉斐尔一样，但用一生的时间，才能像孩子一样画画。

Cucurbit Flute (II) 葫芦丝演奏中级班

- ID 课程代码: IN02A_20S
- Date 日期 : Sun
- Start Date: 1/5/2020
- Session 时间: Session 7, 3:20 pm - 4:05 pm

葫芦丝是中国传统乐器。是傣族同胞唱歌跳舞时的伴奏乐器。从汉朝流传至今。它声音优美，小巧玲珑，容易学习，深受人们喜爱。本科教授基础演奏指法，从演奏简单歌曲开始，同时也教授简谱知识。中级班的曲目是：中级班的曲目是：1. 化蝶。2. 橄榄树。3 北京的金山上。4 小河淌水。5 军港之夜。6 年轻的朋友来相会。7 谁不说俺家乡好。8. 打靶归来。9 大鱼。10. 月光下的风尾竹。根据学生学习情况，我会调整曲目。开班最少人数为5人。。